

REMARKS

A cited JP 6-204113 discloses a first constitution for storing variation information of a transmittance of optical elements disposed on a light path between a light dividing member 8 and wafer 14, caused by an exposure history and by an environments change, a second constitution for experimentally obtaining the transmittance of the optical elements by parameters of the exposure history in advance, and a third constitution for controlling an exposure quantity on the basis of results of a light detector 9. JP 6-204113 also discloses a variation of rate between an illumination on the light detector 9 and on the wafer during exposure or unexposure.

A cited USP 5,892,573 (Takahashi, et al.) Discloses a constitution in which a reticle stage has transmitting portion for transmitting exposure light, and a gain correction is preformed when an exposure light quantity on a wafer is indirectly measured by a light quantity detector 12 on the basis of a first output signal from a monitor which receives the exposure light passing through the transmitting portion and a second output signal from a detector which receives a light divided by a half mirror 5 disposes between a light source and a reticle.

The above cited references, however, do not disclose, teach or suggest concepts of the invention defined in Claim 41, that is, an obtainment of a fluctuation in an attenuation factor of a projection optical system, which is appeared when a mask is moved relative to an exposing energy beam.

They also do not disclose, teach or suggest concepts of the invention defined in Claim 52, that is, a correction of the entered energy entering into the projection optical system on the basis of a pattern information on the pattern of the mask; and an obtainment of an attenuation factor of the projection optical system on the basis of a value of the corrected entering energy and on the fluctuation in the attenuation factor of the projection optical system.

The above remarks are believed to place the application in proper condition for examination. Early and favorable action is awaited.

In the event that any fees are due in connection with this paper, please charge our Deposit Account No. 01-2340.

Respectfully submitted,

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